

canfield connector
 8510 Foxwood Court
 Youngstown, Ohio 44514
 (330) 758-8299 Fax: (330) 758-8912
 www.canfieldconnector.com

MODEL TMLT

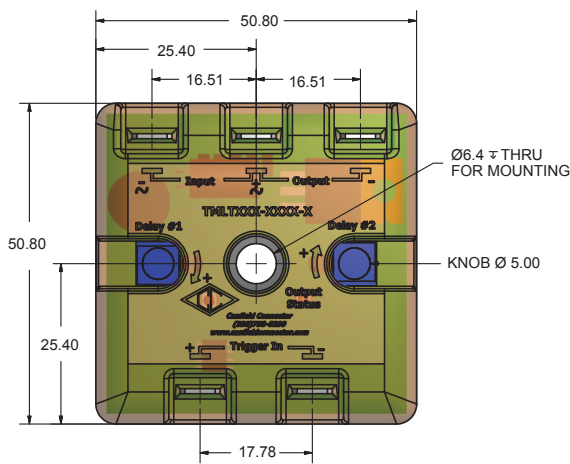
MICROLOGIC TIMER MODULE

General Description

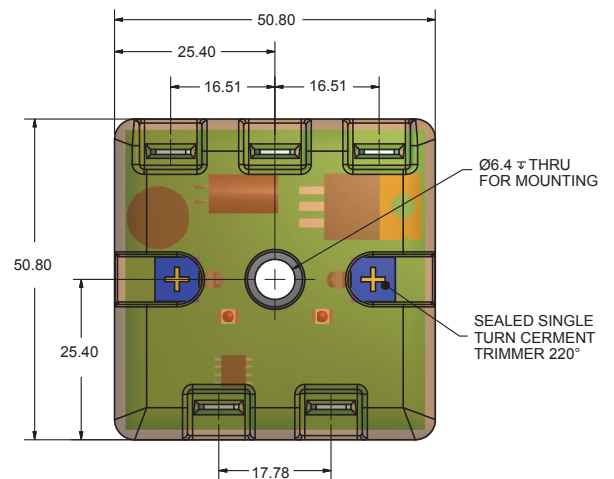
The Canfield Connector TMLT is an ultra-compact all solid state timer incorporated into a vibration and environment resistant composite encapsulant housing. The heart of the timer is a powerful microprocessor that is made in quantity then programmed to become the timer type according to customer specification. Featuring 6 timer modes of operation with two voltage ranges; 12-240V AC/DC or 12-60 VDC and four output options; Sinking ON First, Sinking OFF First, Sourcing ON First, and Sourcing OFF First, and 13 time ranges, from 0.1 to 2000 seconds. The timer is available with screwdriver or hand adjustment, and troubleshooting is a breeze with the onboard indicator light. The TMLT is versatile as well as rugged, and each timer is 100% tested, made in America and resistant to dust, vibration and humidity. Mounting is accomplished by use of a through hole able to accommodate up to a 1/4" (6mm) screw or by use of a DIN rail mount adapter plate. Electrical connections are .250" AMP Faston posts for crimp type push-on connectors.

Dimensional Data

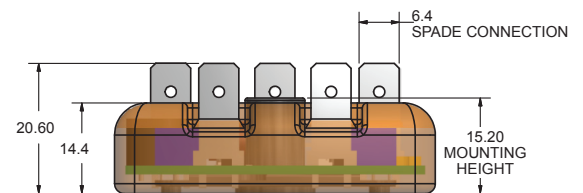
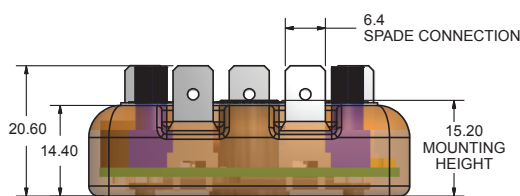
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED



Hand Adjustment



Screwdriver Adjustment



Technical Data

Features

- Maximum timer current draw: 2 mA (No Load)
- Absolute max. input voltage: 240V AC/DC or 60 VDC
- Input voltage range: 12-240 V AC/DC (50/60Hz) or 12-60 VDC
- Maximum output current: 1 Amp
- Logic trigger in: 5-48 VDC (10k input impedance)
- Mechanical trigger rated: 5 VDC, 1mA max
- Ambient temp. range: -20° to +60°C
- Repeat accuracy: ± 0.1% or 10 ms. (whichever is greater)
- Time delay variable over ambient temp. range: +/- 5%
- Enclosure material: Macromelt Thermoplastic Polyamide
- NEMA 1

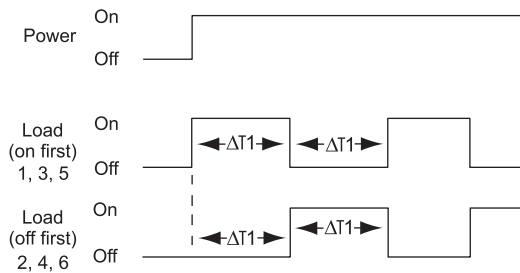
- All Solid State Electronics
- 12-240V AC/DC or 12-60 VDC
- 0.1 to 2000 seconds Time ranges
- Indicator light
- Transient protected
- Faston Connections
- 6 timer modes available
- Hand or screwdriver adjustments
- All encapsulated package

Timing Diagrams / Ordering Guide

Square Wave

How To Order

Load cycles with equal ΔT_1 time when power is applied. Reset occurs when power is removed.



TMLTSW - 00

Voltage / Output Type

- 1 - 12-240V AC/DC / Sinking / On first
- 2 - 12-240V AC/DC / Sinking / Off first
- 3 - 12-60V DC / Sinking / On First
- 4 - 12-60V DC / Sinking / Off First
- 5 - 12-60V DC / Sourcing / On First
- 6 - 12-60V DC / Sourcing / OFF First

Adjustable Potentiometer

- 0 - Screw Adjust
- 1 - Hand Adjust

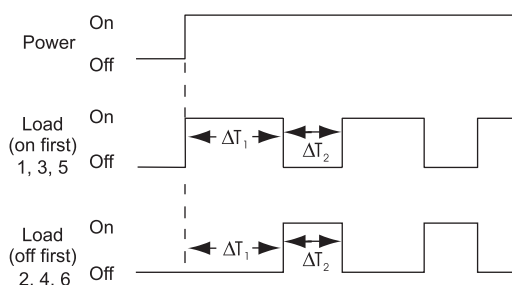
Time Range

- | | |
|---------------------|---------------------|
| A - 0.5 to 5 sec. | H - 5.0 to 50 sec. |
| B - 0.5 to 25 sec. | I - 5.0 to 500 sec. |
| C - 0.5 to 50 sec. | J - 10 to 100 sec. |
| D - 0.5 to 100 sec. | K - 10 to 1000 sec. |
| E - 2.0 to 20 sec. | L - 10 to 2000 sec. |
| F - 2.0 to 200 sec. | Z - 0.1 to 5 sec. |
| G - 2.0 to 400 sec. | |

Cycle

How To Order

Load cycles ΔT_1 and ΔT_2 when power is applied. Reset occurs when power is removed.



TMLTCY - 0

Voltage / Output Type

- 1 - 12-240V AC/DC / Sinking / On first
- 2 - 12-240V AC/DC / Sinking / Off first
- 3 - 12-60V DC / Sinking / On First
- 4 - 12-60V DC / Sinking / Off First
- 5 - 12-60V DC / Sourcing / On First
- 6 - 12-60V DC / Sourcing / OFF First

Adjustable Potentiometer

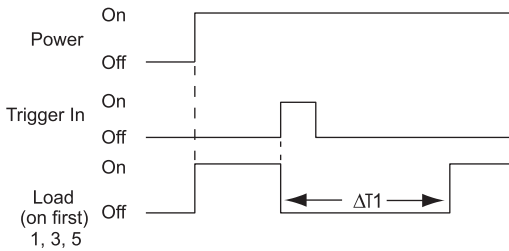
- 0 - Screw Adjust
- 1 - Hand Adjust

Time Range

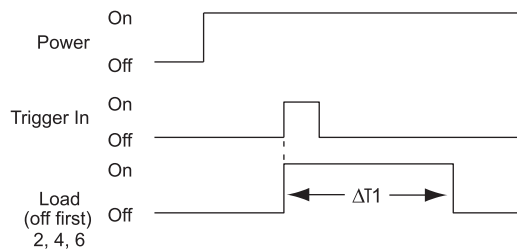
- | | |
|---------------------|---------------------|
| A - 0.5 to 5 sec. | H - 5.0 to 50 sec. |
| B - 0.5 to 25 sec. | I - 5.0 to 500 sec. |
| C - 0.5 to 50 sec. | J - 10 to 100 sec. |
| D - 0.5 to 100 sec. | K - 10 to 1000 sec. |
| E - 2.0 to 20 sec. | L - 10 to 2000 sec. |
| F - 2.0 to 200 sec. | Z - 0.1 to 5 sec. |
| G - 2.0 to 400 sec. | |

Delay On Make

When power is applied, load is on. Load is off for ΔT_1 once the trigger is applied. Reset occurs when load is on and the trigger is re-applied.



When power is applied, load is off. Load is on for ΔT_1 once the trigger is applied. Reset occurs when load is off and the trigger is re-applied.



How To Order

TMLTDM [] - [] 0 [] []

ΔT_1

Voltage / Output Type

- 1 - 12-240V AC/DC / Sinking / On first
- 2 - 12-240V AC/DC / Sinking / Off first
- 3 - 12-60V DC / Sinking / On First
- 4 - 12-60V DC / Sinking / Off First
- 5 - 12-60V DC / Sourcing / On First
- 6 - 12-60V DC / Sourcing / OFF First

Adjustable Potentiometer

- 0 - Screw Adjust
- 1 - Hand Adjust

Trigger Option

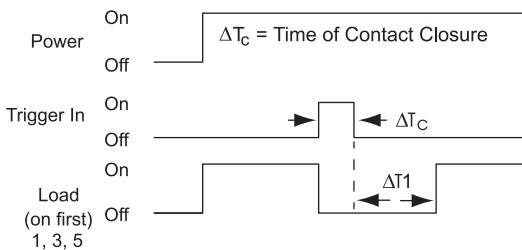
- 1 - 5-48 Volt Trigger
- 2 - Mechanical Trigger

Time Range

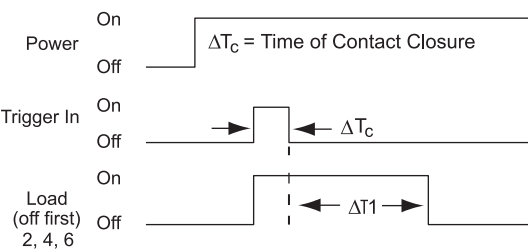
A - 0.5 to 5 sec.	H - 5.0 to 50 sec.
B - 0.5 to 25 sec.	I - 5.0 to 500 sec.
C - 0.5 to 50 sec.	J - 10 to 100 sec.
D - 0.5 to 100 sec.	K - 10 to 1000 sec.
E - 2.0 to 20 sec.	L - 10 to 2000 sec.
F - 2.0 to 200 sec.	Z - 0.1 to 5 sec.
G - 2.0 to 400 sec.	

Delay On Break

When power is applied, load is on. Load is then off for $\Delta T_c + \Delta T_1$ when trigger is applied then removed. Reset occurs when load is on and the trigger is re-applied.



When power is applied, load is off. Load is on for $\Delta T_c + \Delta T_1$ when trigger is applied then removed. Reset occurs when load is off and the trigger is re-applied.



How To Order

TMLTDB [] - [] 0 [] []

ΔT_1

Voltage / Output Type

- 1 - 12-240V AC/DC / Sinking / On first
- 2 - 12-240V AC/DC / Sinking / Off first
- 3 - 12-60V DC / Sinking / On First
- 4 - 12-60V DC / Sinking / Off First
- 5 - 12-60V DC / Sourcing / On First
- 6 - 12-60V DC / Sourcing / OFF First

Adjustable Potentiometer

- 0 - Screw Adjust
- 1 - Hand Adjust

Trigger Option

- 1 - 5-48 Volt Trigger
- 2 - Mechanical Trigger

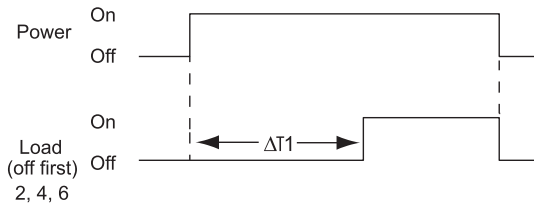
Time Range

A - 0.5 to 5 sec.	H - 5.0 to 50 sec.
B - 0.5 to 25 sec.	I - 5.0 to 500 sec.
C - 0.5 to 50 sec.	J - 10 to 100 sec.
D - 0.5 to 100 sec.	K - 10 to 1000 sec.
E - 2.0 to 20 sec.	L - 10 to 2000 sec.
F - 2.0 to 200 sec.	Z - 0.1 to 5 sec.
G - 2.0 to 400 sec.	

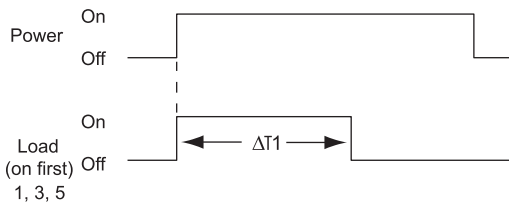
Delay (Non-Triggerable)

How To Order

When power is applied, load is off. Load on after ΔT_1 .
Reset occurs when power is removed



When power is applied, load is on. Load off after ΔT_1 .
Reset occurs when power is removed



TMLTDY - 00

Voltage / Output Type

- 1 - 12-240V AC/DC / Sinking / On first
- 2 - 12-240V AC/DC / Sinking / Off first
- 3 - 12-60V DC / Sinking / On First
- 4 - 12-60V DC / Sinking / Off First
- 5 - 12-60V DC / Sourcing / On First
- 6 - 12-60V DC / Sourcing / OFF First

Adjustable Potentiometer

- 0 - Screw Adjust
- 1 - Hand Adjust

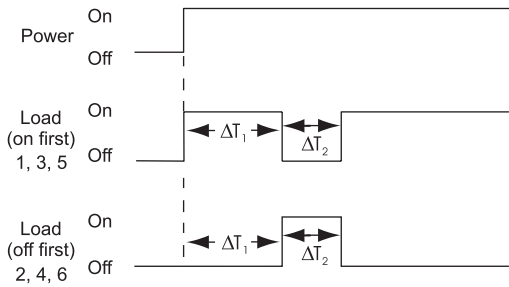
Time Range

A - 0.5 to 5 sec.	H - 5.0 to 50 sec.
B - 0.5 to 25 sec.	I - 5.0 to 500 sec.
C - 0.5 to 50 sec.	J - 10 to 100 sec.
D - 0.5 to 100 sec.	K - 10 to 1000 sec.
E - 2.0 to 20 sec.	L - 10 to 2000 sec.
F - 2.0 to 200 sec.	Z - 0.1 to 5 sec.
G - 2.0 to 400 sec.	

Single Cycle Timer

How To Order

Solenoid cycles ΔT_1 and ΔT_2 when power is applied.
Reset occurs when power is removed.



TMLTSC - 0

Voltage / Output Type

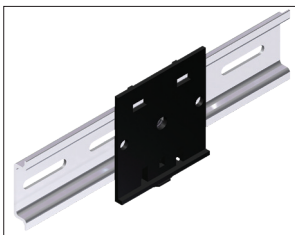
- 1 - 12-240V AC/DC / Sinking / On first
- 2 - 12-240V AC/DC / Sinking / Off first
- 3 - 12-60V DC / Sinking / On First
- 4 - 12-60V DC / Sinking / Off First
- 5 - 12-60V DC / Sourcing / On First
- 6 - 12-60V DC / Sourcing / OFF First

Adjustable Potentiometer

- 0 - Screw Adjust
- 1 - Hand Adjust

Time Range

A - 0.5 to 5 sec.	H - 5.0 to 50 sec.
B - 0.5 to 25 sec.	I - 5.0 to 500 sec.
C - 0.5 to 50 sec.	J - 10 to 100 sec.
D - 0.5 to 100 sec.	K - 10 to 1000 sec.
E - 2.0 to 20 sec.	L - 10 to 2000 sec.
F - 2.0 to 200 sec.	Z - 0.1 to 5 sec.
G - 2.0 to 400 sec.	



DIN Rail Mounting Adapter - DRM-100

Ordering Example:

TMLTSC1-AB00

12-240 AC/DC, Sinking, Single Cycle 1 (on first), 0.5 to 5 sec., 0.5 to 25 sec., Screw Adjust.

Fixed and Custom Time Ranges are Available.
Consult Factory for Details.